

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Status of Claims:

No claims are currently being canceled.

Claims 1-15 are currently being amended.

No claims are currently being added.

This amendment amends claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claims remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-15 are pending in this application.

Objection to Abstract:

In the Office Action, the Abstract was objected to because it used the legal term “means”, and because it is over 150 words in length. By way of this amendment and reply, a new Abstract is being submitted which does not use the legal term “means” and which is within the 150 word limit.

Objection to Disclosure (Specification):

In the Office Action, the disclosure was objected to because of an informality on page 14, line 11. By way of this amendment and reply, that informality, as well as other informalities found in the specification, have been corrected. No new matter has been added.

Objection to Drawings:

In the Office Action, the drawings were objected to for the reasons set forth on pages 2 and 3 of the Office Action. By way of this amendment and reply, Figure 3 has been amended to overcome the objection to the drawings. Upon approval of this drawing change, a replacement formal drawing sheet for Figure 3 will be submitted to the PTO.

Claim Rejections – Prior Art:

In the Office Action, claims 1, 2, 5 and 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,233,068 to Kondo in view of U.S. Patent No. 5,161,029 to Yamanishi; claim 15 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kondo in view of U.S. Patent No. 6,081,687 to Munemori et al.; and claims 3, 4, 6-10 and 12-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kondo in view of U.S. Patent No. 5,161,029 to Yamanishi and further in view of Munemori et al. These rejections are traversed with respect to the presently pending claims under rejection, for at least the reasons given below.

a. Claims 1, 2, 5 and 11:

Presently pending independent claim 1 is directed to an image reading device that includes a manually placed document reading mode by a manually placed document reading means for reading a document placed on a document table made of transparent glass by means of a scanning carriage which moves at a predetermined speed, and an ADF document reading mode by an ADF document reading means for reading a document transported by an ADF by means of the scanning carriage which has been in a stopping state, wherein the reading speed of the manually placed document reading means is set (changed) at a speed sufficient to reduce image vibration as a result of the reading by the manually placed document reading means.

For example, when the document is to be read at a magnification rate of 100% to compare the ADF reading mode and the manually placed document reading mode and if in the manual document reading the scanning carriage is to be moved within a short time at the same speed as in the transportation speed of the ADF document reading, deterioration in image quality due to vibration will occur because the image reading operation is started when vibration generated during acceleration of the scanning carriage is still present. According to the present invention, such deterioration can be prevented. (See page 1, lines 10-12, page 2, lines 10-15, and page 3, line 12 through page 4, line 20, of the specification.)

In this claim, “the same speed as in the transportation speed of the ADF document reading” corresponds to “a speed that enables a required number of sheets to be read per unit time as a predetermined reading speed defined by a document transportation speed by an ADF” (see page 2, line 27, through page 3, line 16, of the specification).

More particularly, presently pending independent claim 1 is directed to an image reading device operable in a manually placed document reading mode offered by a manually placed document reading means which reads a document placed on a document table made of transparent glass by means of a scanning carriage which moves at a predetermined speed, and an ADF document reading mode offered by an ADF document reading means which reads a document transported by an ADF by means of the scanning carriage which has been in a stopping state, comprising:

reading mode detecting means which detects in which mode of the manually placed document reading mode and the ADF document reading mode a document to be read is in;

first reading-speed setting means which sets a reading speed of the ADF document reading means defined by a document transportation speed by the ADF to a predetermined first reading speed, upon detection by the reading mode detecting means that the document to be read is in the ADF document reading mode; and

second reading-speed setting means which sets a reading speed of the manually placed document reading means defined by a moving speed of the scanning carriage to a predetermined second reading speed sufficient to reduce image vibration in a result of reading by the manually placed document reading means, upon detection by the reading mode detecting means that the document to be read is in the manually placed document reading mode,

wherein the first reading-speed setting means changes the predetermined first reading speed defined by the document transportation speed by the ADF to be a high speed that enables a required number of sheets to be read per unit time, and the second reading-speed setting means changes the predetermined second reading speed defined by the moving speed of the scanning carriage to be a speed slower than the predetermined first reading speed.

Presently pending independent claim 5 is directed to an image reading method operable in a manually placed document reading mode offered by a manually placed document reading means which reads a document placed on a document table made of transparent glass by means of a scanning carriage which moves at a predetermined speed, and an ADF document reading mode offered by an ADF document reading means which reads a document transported by an ADF by means of the scanning carriage which has been in a stopping state, comprising:

detecting which mode of the manually placed document reading mode and the ADF document reading mode a document to be read is in,

setting a reading speed for the ADF document reading means defined by a document transportation speed by the ADF to a predetermined first reading speed, upon detection that the document to be read is in the ADF document reading mode; and

setting a reading speed for the manually placed document reading means defined by a moving speed of the scanning carriage to a predetermined second reading speed sufficient to reduce image vibration as a result of the reading by the manually placed document reading means, upon detection that the document to be read is in the manually placed document reading mode,

wherein said setting to the first reading speed changes the predetermined first reading speed defined by the document transportation speed by the ADF to be a high speed that enables a required number of sheets to be read per unit time, and said setting to the second reading speed changes the predetermined second reading speed defined by the moving speed of the scanning carriage to be a speed slower than the predetermined first reading speed.

Presently pending independent claim 11 is directed to an image reading device operable in a manually placed document reading mode offered by a manually placed document reading means which reads a document placed on a document table made of transparent glass by means of a scanning carriage which moves at a predetermined speed and an ADF document reading mode offered by an ADF document reading means which reads a document transported by an ADF by means of the scanning carriage which has been in a stopping state, comprising:

reading mode detecting means which detects in which mode of the manually placed document reading mode and the ADF document reading mode a document to be read is in, and

reading speed changing means which switches between a predetermined first reading speed for the manually placed document reading means defined by a document transportation speed by the ADF set upon the detection by the reading mode detecting means that the document to be read is in the manually placed document reading mode and a predetermined second reading speed for the ADF document reading means defined by a moving speed of the

scanning carriage set upon the detection that the document to be read is in the ADF document reading mode,

wherein the reading speed changing means changes the predetermined first reading speed defined by the document transportation speed by the ADF to be a high speed that enables a required number of sheets to be read per unit time, and changes the predetermined second reading speed defined by the moving speed of the scanning carriage to be a speed slower than the predetermined first reading speed and sufficient for the reduction of image vibration as a result of the reading by the manually placed document reading means.

As mentioned above, the “manually placed document reading mode” of claims 1, 5 and 11 corresponds to “a mode for reading a document placed (by a user) on a document table made of transparent glass at a speed sufficient for the reduction of image vibration as a result of the reading by the scanning carriage.”

In contrast, in Kondo, the “manual feeding (SADF mode)” (column 7, lines 61-67, and column 8, lines 1-10) indicates that a document inserted by a user to a manual feed tray 2601 is transported by a manual feed mechanism to a reading section 2200 at a predetermined speed and is read by a stationary scanning carriage.

The subject matter of Kondo is to inhibit the load on a document from transport rollers so as not to damage the document when the document is inserted into a manual feed tray is thin in the SADF mode (see column 1, lines 30-41 of Kondo).

In Kondo, when a copying magnification is 1.0 or more, a document transportation speed in the SADF mode is set at a predetermined speed in accordance with the copying magnification, and when the copying magnification is less than 1.0, the document transportation speed is set at a speed for a copying magnification of 1.0, regardless of the copying magnification so as not to damage a thin paper document during the transportation (see column 9, lines 22-36 of Kondo).

Thus, Kondo does not disclose or suggest that the reading speed of the manually placed document reading means is set (changed) at a speed sufficient to reduce image vibration as a result of the reading by the manually placed document reading means in order to prevent deterioration in image quality due to vibration which occurs because the image reading operation is started when vibration generated during acceleration of the scanning

carriage is still present, when the document is to be read at a magnification rate of 100% to compare the ADF reading mode and the manually placed document reading mode and if in the manual document reading the scanning carriage is to be moved within a short time at the same speed as in the transportation speed of the ADF document reading.

The Office Action asserts that Kondo discloses reading mode detecting means which detects which mode of the manually placed document reading mode and the ADF document reading mode a document to be read is in (column 7, lines 61-67 and column 8, lines 1-10 and 17-20), which is one of the subject matter of the present invention. However, this assertion is incorrect.

In particular, column 7, lines 61-67 and column 8, lines 1-10 and 17-20 of Kondo merely disclose that in a manual feeding mode (ASDF mode), a document inserted by a user to a manual feed tray 2601 is transported by a manual feed mechanism to a reading section 2200 at a predetermined speed and is read by a stationary scanning carriage, but do not disclose or suggest the reading mode detecting means which detects which mode of the manually placed document reading mode and the ADF document reading mode a document to be read is in of the present invention.

Thus, Kondo cannot anticipate presently pending independent claims 1, 5 and 11.

Furthermore, Kondo does not disclose the features of: a second reading-speed setting means which sets a reading speed of the manually placed document reading means defined by a moving speed of the scanning carriage to a predetermined second reading speed sufficient to reduce image vibration in a result of reading by the manually placed document reading means, upon detection by the reading mode detecting means that the document to be read is in the manually placed document reading mode; the second reading-speed setting means changing the predetermined second reading speed defined by the moving speed of the scanning carriage to be a speed slower than the predetermined first reading speed (defined by a document transportation speed by the ADF); reading speed changing means switching between a predetermined first reading speed for the manually placed document reading means defined by a document transportation speed by the ADF set upon the detection by the reading mode detecting means that the document to be read is in the manually placed document reading mode and a predetermined second reading speed for the ADF document reading means defined by a moving speed of the scanning carriage set upon the detection that the

document to be read is in the ADF document reading mode; and the reading speed changing means changing the predetermined second reading speed defined by the moving speed of the scanning carriage to be a speed slower than the predetermined first reading speed (defined by a document transportation speed by the ADF) and sufficient for the reduction of image vibration as a result of the reading by the manually placed document reading means.

Therefore, Kondo does not disclose or suggest the reading mode detecting means which detects in which mode of the manually placed document reading mode and the ADF document reading mode a document to be read is in, which is one of the features recited in claims 1, 5 and 11.

Furthermore, Kondo does not disclose or suggest other features of claim 1, 5 or 11, in which second reading-speed setting means sets a reading speed of the manually placed document reading means defined by a moving speed of the scanning carriage to a predetermined second reading speed sufficient to reduce image vibration in a result of reading by the manually placed document reading means, upon detection by the reading mode detecting means that the document to be read is in the manually placed document reading mode; the first reading-speed setting means changes the predetermined first reading speed defined by the document transportation speed by the ADF to be a high speed that enables a required number of sheets to be read per unit time, and the second reading-speed setting means changes the predetermined second reading speed defined by the moving speed of the scanning carriage to be a speed slower than the predetermined first reading speed (defined by a document transportation speed by the ADF); reading speed changing means switches between a predetermined first reading speed for the manually placed document reading means defined by a document transportation speed by the ADF set upon the detection by the reading mode detecting means that the document to be read is in the manually placed document reading mode and a predetermined second reading speed for the ADF document reading means defined by a moving speed of the scanning carriage set upon the detection that the document to be read is in the ADF document reading mode, and the reading speed changing means changes the predetermined second reading speed defined by the moving speed of the scanning carriage to be a speed slower than the predetermined first reading speed (defined by a document transportation speed by the ADF) and sufficient for the reduction of image vibration as a result of the reading by the manually placed document reading means.

Yamanishi discloses an image forming apparatus having only a manually placed document reading mode, in which a stepping motor for driving a scanning carriage is driven at a high speed when copying at a normal copying magnification (70 to 150%), and it is driven at a low speed and a low current is applied when copying at a magnification of 150% or more, so as to prevent vibration and noise produced when copying at a large magnification (150% or more) (column 1, line 44, through column 2, line 2).

Yamanishi is directed to suppressing the vibration and noise produced when driving the stepping motor for driving a scanning carriage at a low speed in order to perform copying at a magnification larger than a normal copying magnification (70 to 150%) in an image forming apparatus having only a manually placed document reading mode (see column 8, lines 39-54 of Yamanishi).

In contrast, as mentioned above, the present invention is directed to preventing deterioration in image quality due to vibration which occurs because the image reading operation is started when vibration generated during acceleration of the scanning carriage is still present, when the document is to be read at a magnification rate of 100% to compare the ADF reading mode and the manually placed document reading mode and if in the manual document reading the scanning carriage is to be moved within a short time at the same speed as in the transportation speed of the ADF document reading, in an image reading device comprising a manually placed document reading mode by a manually placed document reading means for reading a document placed on a document table made of transparent glass by means of a scanning carriage which is moved at a predetermined speed, and an ADF document reading mode by an ADF document reading means for reading a document transported by an ADF by means of the scanning carriage which has been in a stopping state. Therefore, the presently claimed invention is much different from Yamanishi, in structure and in purpose.

Further, since Yamanishi is directed to an image forming apparatus having only a manually placed document reading mode, it does not disclose a reading mode detecting means which detects in which mode of the manually placed document reading mode and the ADF document reading mode a document to be read is in, which is one of the features of claims 1, 5 and 11.

Furthermore, Yamanishi does not disclose other features of claims 1, 5 and 11, in which second reading-speed setting means sets a reading speed of the manually placed document reading means defined by a moving speed of the scanning carriage to a predetermined second reading speed sufficient to reduce image vibration in a result of reading by the manually placed document reading means, upon detection by the reading mode detecting means that the document to be read is in the manually placed document reading mode; the second reading-speed setting means changes the predetermined second reading speed defined by the moving speed of the scanning carriage to be a speed slower than the predetermined first reading speed (defined by a document transportation speed by the ADF); reading speed changing means switches between a predetermined first reading speed for the manually placed document reading means defined by a document transportation speed by the ADF set upon the detection by the reading mode detecting means that the document to be read is in the manually placed document reading mode and a predetermined second reading speed for the ADF document reading means defined by a moving speed of the scanning carriage set upon the detection that the document to be read is in the ADF document reading mode, and the reading speed changing means changes the predetermined second reading speed defined by the moving speed of the scanning carriage to be a speed slower than the predetermined first reading speed (defined by a document transportation speed by the ADF) and sufficient for the reduction of image vibration as a result of the reading by the manually placed document reading means.

Lines 27-31 of column 3 of Yamanishi merely describe conveying a sheet as an image formation medium, which is not particularly relevant to the presently claimed invention.

As mentioned above, lines 40-54 of column 8 of Yamanishi merely relate to suppressing the vibration and noise produced when driving a stepping motor at a low speed in order to perform copying at a magnification larger than a normal copying magnification (70 to 150%) in an image forming apparatus having only a manually placed document reading mode, but do not disclose or suggest the subject matter of the present invention of an image reading device operable in an ADF document reading mode offered by an ADF document reading means, wherein the predetermined second reading speed defined by the moving speed of the scanning carriage is changed to be a speed slower than the predetermined first reading speed and sufficient for the reduction of image vibration as a result of the reading by the

manually placed document reading means in order to prevent deterioration in image quality due to vibration which occurs because the image reading operation is started when vibration generated during acceleration of the scanning carriage is still present, when in a manual document reading, the scanning carriage is to be moved within a short time at the same speed as in the transportation speed of the ADF document reading.

Therefore, there is no motivation to combine Yamanishi, whose subject matter is much different from that of the present invention and which does not disclose or suggest the features of claim 1, 5 or 11, with Kondo, whose subject matter is much different from that of the present invention and which also does not disclose or suggest the features of claim 1, 5 or 11.

Accordingly, presently pending claims 1, 2, 5 and 11 are patentable over the combined teachings of Kondo and Yamanishi.

b. Claim 15:

With respect to the rejection of claim 15, that claim is directed to an image reading method operable in a manually placed document reading mode offered by a manually placed document reading means which reads a document placed on a document table mode of transparent glass by means of a scanning carriage which moves at a predetermined speed and an ADF document reading mode offered by an ADF document reading means which reads a document transported by an ADF by means of the scanning carriage which has been in a stopping state, comprising:

detecting which mode of the manually placed document reading mode and the ADF document reading mode a document to be read is in; and

changing between a predetermined first reading speed of the manually placed document reading means defined by a document transportation speed by the ADF set upon the detection that the document to be read is in the manually placed document reading mode and a predetermined second reading speed of the ADF document reading means defined by a moving speed of the scanning carriage set upon the detection that the document to be read is in the ADF document reading mode,

wherein said changing the reading speeds changes the predetermined first reading speed defined by the document transportation speed by the ADF to be a high speed that

enables a required number of sheets to be read per unit time, and changes the predetermined second reading speed defined by the moving speed of the scanning carriage to be a speed slower than the predetermined first reading speed and sufficient for the reduction of image vibration as a result of the reading by the manually placed document reading means.

As mentioned above, the subject matter of Kondo is much different from that of the presently claimed invention.

Further, the subject matter of Munemori et al. is to provide a copying machine of a moving document scanning type having a small automatic document feeder which is capable of forming images at high speed either in an automatic magnification selection (AMS) mode or an automatic paper selection (APS) mode (see column 2, lines 58-63 of Munemori et al.).

Thus, the subject matter of Munemori et al. is much different from the subject matter of the present invention according to claim 15.

Moreover, both Kondo and Munemori et al. fail to teach or suggest the subject matter of claim 15 in which the reading speed of the manually placed document reading means is set (changed) at a speed sufficient to reduce image vibration as a result of the reading by the manually placed document reading means, in order to prevent deterioration in image quality due to vibration which occurs because the image reading operation is started when vibration generated during acceleration of the scanning carriage is still present, when in a manual document reading the scanning carriage is to be moved within a short time at the same speed as in the transportation speed of the ADF document reading.

Still further, both Kondo and Munemori et al. fail to teach the features of claim 15 corresponding to changing between a predetermined first leading speed of the manually placed document reading means defined by a document transportation speed by the ADF set upon the detection that the document to be read is in the manually placed document reading mode and a predetermined second reading speed of the ADF document reading means defined by a moving speed of the scanning carriage set upon the detection that the document to be read is in the ADF document reading mode, and changing the predetermined second reading speed defined by the moving speed of the scanning carriage to be a speed slower than the predetermined first reading speed and sufficient for the reduction of image vibration as a result of the reading by the manually placed document reading means.

Column 11, lines 9-14 of Munemori et al. merely discloses that a document transport speed V1 is set equal to the moving speed of a scanner 204 in a stationary document scan mode, but it may be set at a particular speed in a moving document scan mode by changing intervals between generating clock pulses for reading a document in pixels.

Accordingly, Munemori et al. does not disclose or suggest the features of claim 15 in which the reading speed of the manually placed document reading means is set (changed) at a speed sufficient to reduce image vibration as a result of the reading by the manually placed document reading means.

Furthermore, column 20, lines 8-13 of Munemori et al. merely discloses that upon receipt of a command to start scanning from the CPU 405 (step S330), the current document scan mode is judged whether it is the stationary document scan mode or the moving document scan mode (step S340). Thus, Munemori et al. does not disclose or suggest the features of claim 15 in which the reading speed of the manually placed document reading means is set (changed) at a speed sufficient to reduce image vibration as a result of the reading by the manually placed document reading means.

Therefore, there is no motivation to combine Munemori et al., whose subject matter is much different from that of the present invention and which does not disclose or suggest the feature of claim 15, with Kondo, whose subject matter is much different from that of the present invention and which does not disclose or suggest the features of claim 15.

Therefore, presently pending independent claim 15 is patentable over the combination of Kondo and Munemori et al.

c. Claims 3, 4, 6-10 and 12-14:

With respect to claims 3, 4, 6-10 and 12-14, the subject matter of Kondo is much different from the present invention, as discussed in detail above.

Further, as mentioned above, the subject matter of both Yamanishi and Munemori et al. is much different from that of the present invention.

Therefore, there is no motivation to combine Yamanishi and Munemori et al., whose subject matters are much different from the subject matter of the present invention and do not disclose or suggest the features of the claimed invention, with Kondo, whose subject matter is

much different from the present invention and which does not disclose or suggest the features of the claimed invention.

Moreover, as mentioned above, since independent claims 1, 5 and 11 are allowable over Kondo and Yamanishi, and since Munemori et al. does not rectify the shortcomings of Kondo and Yamanishi, claims 3, 4, 6-9 and 12-14, which are dependent on either claim 1, 5 or 11, are also allowable.

Also, presently pending independent claim 10 is directed to an image reading method operable in a manually placed document reading mode offered by a manually placed document reading means which reads a document placed on a document table made of transparent glass by means of a scanning carriage which moves at a predetermined speed and an ADF document reading mode offered by an ADF document reading means which reads a document transported by an ADF by means of the scanning carriage which has been in a stopping state, comprising:

detecting which mode of the manually placed document reading mode and the ADF document reading mode a document to be read is in;

setting a reading speed for the ADF document reading means defined by a document transportation speed by the ADF to a predetermined first reading speed upon detection that the document to be read is in the ADF document reading mode; and

setting a reading speed for the manually placed document reading means defined by a moving speed of the scanning carriage to a predetermined second reading speed slower than the reading speed for the ADF document reading means, upon detection that the document to be read is in the manually placed document reading mode,

wherein said setting to the first reading speed changes the predetermined first reading speed defined by the document transportation speed by the ADF to be a high speed that enables a required number of sheets to be read per unit time, and said setting to the second reading speed changes the predetermined second reading speed defined by the moving speed of the scanning carriage to be a speed slower than the predetermined first reading speed and sufficient for the reduction of image vibration as a result of the reading by the manually placed document reading means.

As mentioned above, there is no motivation to combine Yamanishi, whose subject matter is much different from that of the present invention, with Kondo, whose subject matter is much different from that of the present invention.

As mentioned above, the assertion made in the Office Action that Kondo discloses reading mode detecting means which detects which mode of the manually placed document reading mode end the ADF document reading mode a document to be read is in (column 7, lines 61-67; column 8, lines 1-10 and 17-20), is incorrect.

Further, as mentioned above, column 3, lines 27-31 and column 8, lines 40-54 of Yamanishi do not disclose or suggest anything related to the features recited in claim 10.

Furthermore, as mentioned above, column 11, lines 9-14 and column 20, lines 8-13 of Munemori et al. do not disclose or suggest anything related to the features recited in claim 10.

Therefore, claim 10 is patentable over the combination of Kondo, Yamanishi and Munemori et al.

Conclusion:

Since all of the issues raised in the Office Action have been addressed in this Amendment and Reply, Applicants believe that the present application is now in condition for allowance, and an early indication of allowance is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. § 1.136 and authorize payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date June 8, 2005

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Amendments to the Drawings:

Please substitute the attached one sheet (Figure 3) of formal drawings for the informal drawings originally filed with the application.

The drawing sheet attached in connection with the above-identified application containing Figure 3 is being presented as a new formal drawing sheet to be substituted for the previously submitted drawing sheet. The drawing figure 3 has been amended. Appended to this amendment is an annotated copy of the previous drawing sheet which has been marked to show changes presented in the replacement sheet of the drawing.

The specific changes which have been made to Figure 3 are:

- a) to re-label element 25 as “First Motor driver”;
- b) to re-label element 26 as “Second Motor driver”;
- c) to re-label element 15 as “First Photo interrupter”;
- d) to re-label element 16 as “Second Photo interrupter”;
- e) to label element 30 as “M1”; and
- f) to label element 31 as “M2”.

ABSTRACT OF THE DISCLOSURE

An image reading device is operable in a manually placed document reading mode offered by a manually placed document reading section and an ADF document reading mode offered by an ADF document reading section. Reading mode detecting section detects in which mode ~~of the manually placed document reading mode and the ADF document reading mode~~ a document to be read is in. First reading-speed setting section sets a reading speed of the ADF document reading section to a predetermined reading speed, upon detection by the reading mode detecting ~~means~~ section that the document to be read is in the ADF document reading mode. Second reading-speed setting section sets a reading speed of the manually placed document reading section to a predetermined reading speed sufficient to reduce image vibration caused by reading by the manually placed document reading section, upon detection by the reading mode detecting section that the document to be read is in the manually placed document reading mode.

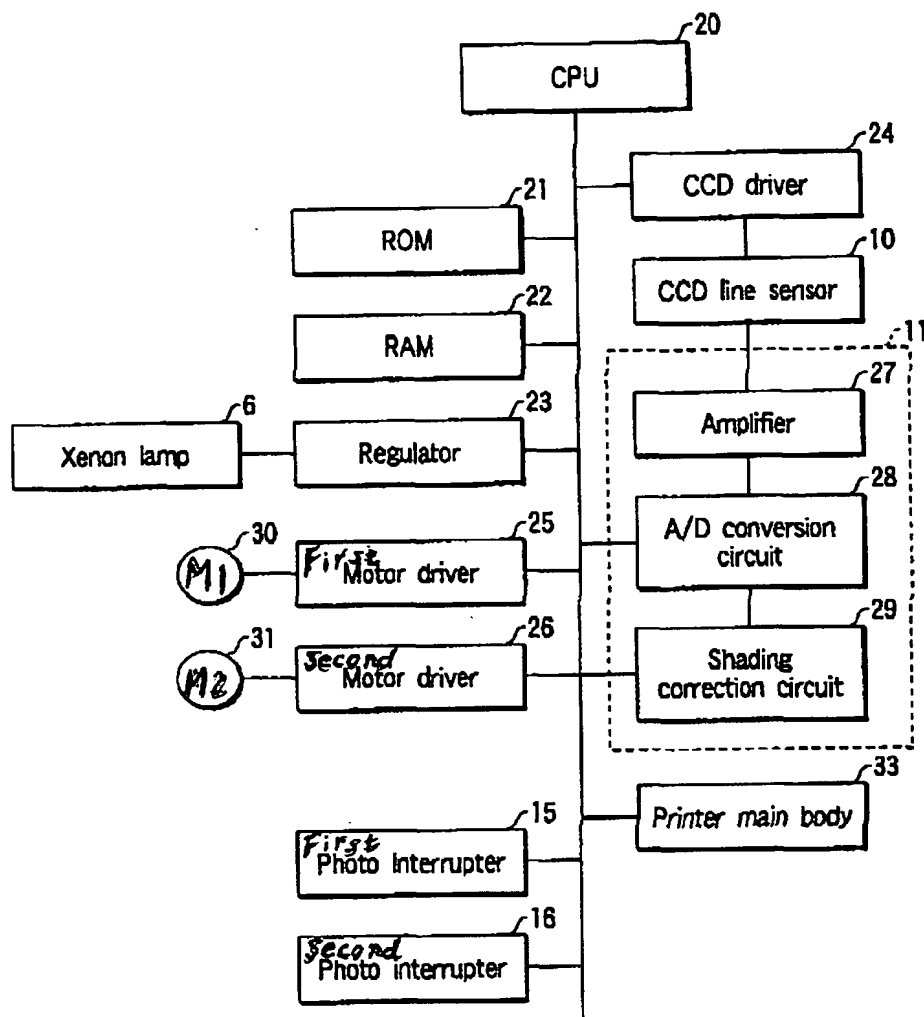


FIG. 3